REMARKS

This is in response to the Office Action mailed on April 27, 2006. With this Amendment claims 1, 8, 17, 21, 31, and 38 are amended.

Claim Rejections - 35 U.S.C. §102

In the Office Action, claims 1-3, 5, 8-10, 12, 15-19, 21, 24-26, 28, 31-33, 35, 38-40, and 42 were rejected under 35 U.S.C. § 102(b) as being anticipated by Huebsch et al. (U.S. 5,853,422). Specifically, the Office Action stated that Huebsch discloses, "an occluding body (10) with a fixed center post (232), and a floating center post (216), a plurality of puller arms (222), first and second support frames (222)." The Office Action also states that Huebsch discloses that, "the floating center is movable proximally from the fixed center when in the compressed shape shown in figure 14, wherein when the body is in the compressed state the fixed center can be pulled out or pushed out away from the floating center."

With this Amendment, independent claims 1, 8, 17, 24, 31 and 38 of the present invention have been amended to include a "grasping knob" (32) depicted in Figure 4 that is attached to the proximal end of the floating center post. The function of the grasping knob is to transmit pushing forces (in the distal direction) and pulling forces (in the proximal direction) to the floating center post. The floating center is pulled away from the center post when a pulling force is applied to the grasping knob in a proximal direction. This will cause the floating center to apply a force to the puller arms, which will radially collapse the occluding body connected to the puller arms.

Huebsch discloses methods for changing the state of the occlusion device in two embodiments. In the first relevant embodiment (Figures 14 - 17), Huebsch discloses a method for radially opening the occluding body. This is done by inserting a pull mechanism 230 longitudinally through the hollow center of the entire device, twisting the pull mechanism 230, and applying a proximal force to distal end 216 of device 200. This moves the distal and central locking means towards the

proximal locking means radially expanding struts 222 until the central, proximal, and distal locking means latch together. This method does not incorporate a grasping knob.

In the present invention pulling or pushing force can be applied to a grasping knob located on the proximal end of a floating center without having to a guide a structure, such as the pull bar mentioned in Huebsch, through narrow slots. Furthermore, the grasping knob eliminates the need for twisting of the deployment mechanism when radially opening or collapsing the occluding body.

In the second relevant embodiment (Figures 6 - 11), Huebsch discloses an apparatus for radially collapsing and radially opening an occluding body. This is done by inserting the inner shaft 148 of Twist-lok mechanism 140 (Figure 11) longitudinally through the hollow center of the entire device and maneuvering Twist-lok means 144 to a point flush with distal Twist-lok track 132. Twist-lok means 144 must then be precisely twisted into Twist-lok shaft 148. After Twist-lok means 144 is in place, Twist-lok means 142 must be similarly maneuvered into Twist-lok track 130.

After both Twist-lok means 142 and 144 are in place the occluding body 112 can then be radially opened or collapsed. In order to collapse the occluding body a pushing force in the distal direction must be applied to outer shaft 146 which transfers the force to end 114. Concurrently, a pulling force in the proximal direction must be applied to inner shaft 148, transferring the force to end 116. This simultaneous application of forces causes the two ends 114 and 116 to be move distally and proximally respectively, towards the center 118. This also causes locking means 122, 124, 126 and 128 to move towards each other, locking the device into a radially open state. Lastly, the entire Twist-lok mechanism must be removed from the device. This method does not incorporate a grasping knob.

In the present invention pulling or pushing force is only applied to a grasping knob located on the proximal side of the floating center. This simplifies the total deployment process in many ways. First, the operator is only required to manipulate one set of forceps, rather than two independent wires as in Huebsch. Second, no torque is necessarily applied to the deployment catheters because the present invention does not utilize a Twist-lok mechanism. Third, because there is no Twist-lok

mechanism the operator does not have to carefully manipulate the tiny Twist-Lok means 142 and 144 into narrow Twist-lok tracks 130 and 132. In the present invention, the operator need only squeeze the grasping knob with forceps, and push or pull the device as necessary.

With this Amendment, independent claims 1, 8, 17, 24, 31 and 38 of the present invention have also been amended to clarify that the collapsed state is a "radially collapsed" state and the open state is a "radially open" state. "Radially collapsed" refers to the state of the occluding body, usually during delivery, when it has the smallest radial diameter. "Radially open" refers to the state of the occluding body, usually while performing an occlusion function, in which it has the largest radial diameter.

Independent claims 1, 8, 17, 24, 31, and 38 are not anticipated by the Huebsch patent and the rejection under 35 U.S.C. §102(b) should be withdrawn. It is respectfully submitted that claims 1, 8, 17, 24, 31, and 38 are patentable on their own merits and claims 2, 3, 5, 9, 10, 12, 15, 16, 18, 19, 21, 25, 26, 28, 32, 33, 35, 39, 40, and 42 are further allowable since they depend from a patentable independent claim. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

Claim Rejections - 35 U.S.C. §103

In the Office Action, claims 6, 7, 13, 14, 22, 23, 29, 30, 36, 37, 43, and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huebsch, in view of Forber (5,733,294). The Examiner states that Huebsch discloses the invention substantially as claimed but does not disclose that the floating and fixed center posts are constructed of platinum-iridium. Forber discloses fixed and floating center posts constructed of platinum-iridium.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found in either the references themselves or in the knowledge generally available to one of ordinary

skill in the art. M.P.E.P. 2143.01, citing In re Fine, 5 USPQ2d 1596 (CAFC 1988) and In re Jones, 21 USPQ 1941 (CAFC 1992). In addition, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Independent claims 1, 8, 17, 24, 31, and 38 (from which claims 6, 7, 13, 14, 22, 23, 29, 30, 36, 37, 43, and 44 depend) of the present invention have been amended to further clarify the structure and operation of the invention. As discussed above, Huebsch does not disclose the invention as defined in the amended claims and Forber does not provide the missing disclosure. It is respectfully submitted that the rejections under 35 U.S.C. § 103 should be withdrawn.

With the above amendments and discussion, the application is now in condition for allowance, and notice to that effect is respectfully requested.

Respectfully submitted,

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